
Brightwater Project Status

Metropolitan Water Pollution Abatement Advisory Committee

February 7, 2007



King County

Department of Natural Resources and Parks
Wastewater Treatment Division

Today's Presentation

- Summary of accomplishments in 2006 and expected progress in 2007
 - Treatment Plant
 - Conveyance System
- Project overview
 - Overall project costs
 - 2006 expenditures
 - 2006 performance measures
 - Schedule

Brightwater Treatment Plant: Accomplishments in 2006

- King County and its contractors accomplished a significant amount of work on the Treatment Plant in 2006
 - KC satisfied the seismic requirements of the Brightwater Development Agreement
 - KC completed review of 100% design documents & began construction
 - Hoffman substantially completed construction of the North Mitigation Area
 - Hoffman began site preparation for treatment plant construction

The Treatment Plant design meets all seismic requirements and codes

- In December 2006, Snohomish County issued a letter to King County accepting the seismic trenching and design reports for the Brightwater Treatment Plant site
- The letter acknowledged that King County satisfied the seismic Investigation and construction standards of the Brightwater Development Agreement
- The letter also concluded that the assumptions and design parameters for the treatment plant are in compliance with the 2003 International Building Codes

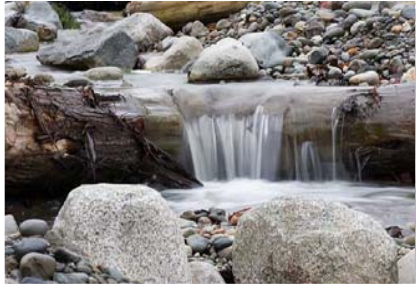
The Treatment Plant design was completed and reviewed by King County

- Final design was submitted by CH2M Hill in October
 - 33 volumes of plans, specifications, and equipment lists
- King County completed review of the design documents in December
- King County continues to prepare the scopes of work and implementation plans necessary to construct the project, including:
 - Final I/C design, startup and commissioning, construction management (WTD staff and CDM), design support during construction (CH2M Hill), and preparation of the operating manuals and as-built construction drawings

Hoffman Construction Company substantially completed work on the North Mitigation Area



Improvements in the North Mitigation Area include stream enhancements and new ponds, constructing boardwalks & trails, and planting native grasses and trees



Hoffman Construction began preparing the Treatment Plant site for construction

- Mass grading and removing contaminated soil
- Installing dewatering equipment
- Installing temporary stormwater systems & erosion control measures
- Constructing the effluent drop structure
- Placing yard piping



Workers near completion of the Effluent Drop Structure on the treatment plant site

Treatment Plant Site Preparation



Site preparations as of late October 2006

Yard
piping
being
placed



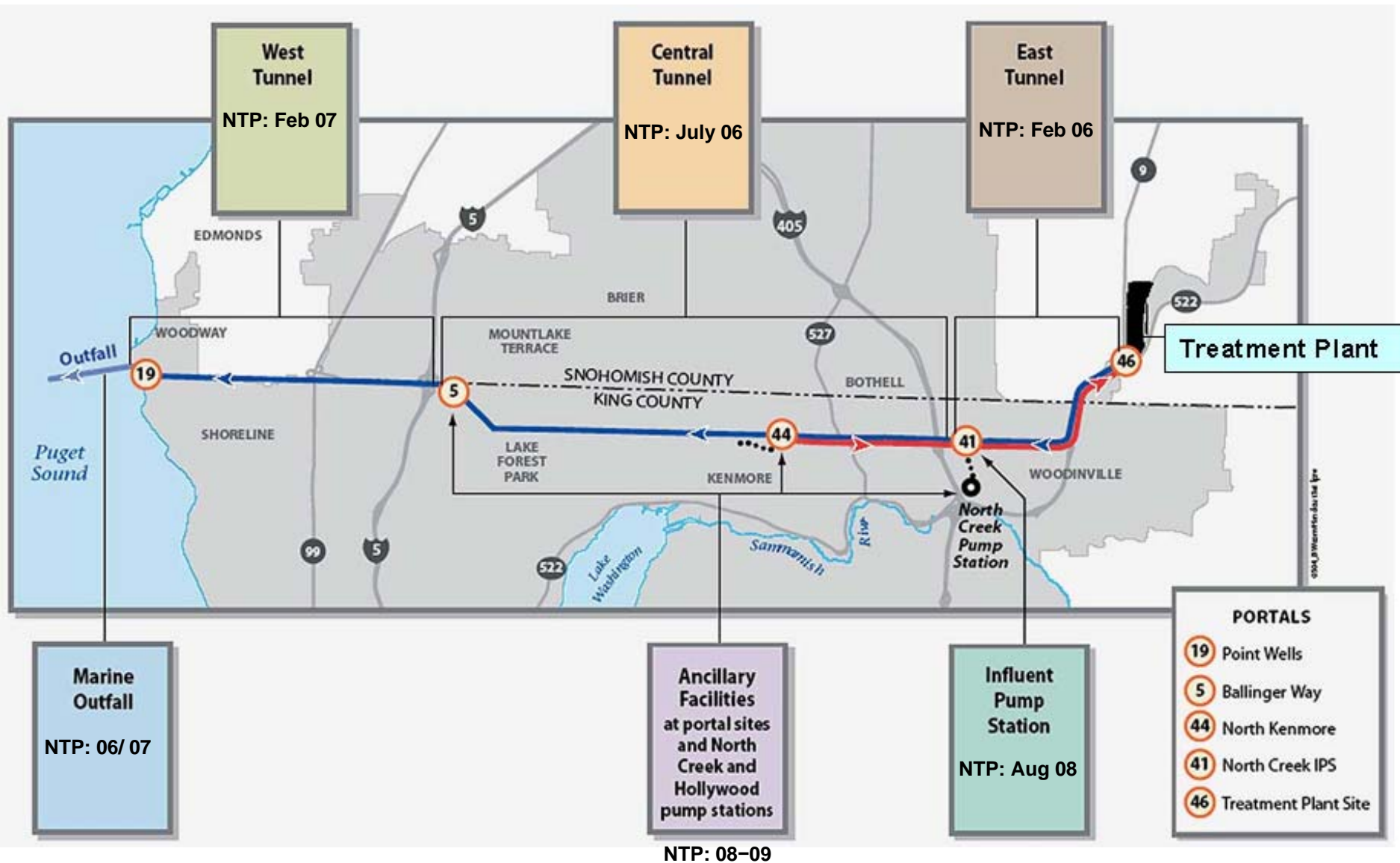
Brightwater Treatment Plant: Expected Progress in 2007

- Complete the North Mitigation Area
- Complete site preparation
- Complete negotiations with Hoffman to determine the Maximum Allowable Construction Cost (MACC)
- Bid and award contracts to construct the plant process units

2007 Construction Sequence for the Treatment Plant

- Excavate areas for the plant's headworks, primary treatment, solids handling, & digesters
- Form and pour foundations
- Install yard piping
- Complete North Mitigation Area
- Renovate Stockpot building
- Approximately 270 construction workers will be involved in these activities

Brightwater Conveyance System



Brightwater Conveyance System: Accomplishments in 2006

- Selected a joint venture contractor for the East Tunnel and began construction on the Influent/Influent Pump Station shafts at North Creek
- Selected a JV contractor for the Central Tunnel and began construction on the tunnel shafts at North Kenmore
- Selected a JV contractor for the West Tunnel
- Received and reviewed 5 Statement of Qualifications (SOQs) for the Marine Outfall Design-Build Project

Brightwater Conveyance System: Accomplishments in 2006

- Completed design on the Influent Pump Station and advertised for bids
- Completed design for most of the Reclaimed Water Backbone and advertised the segment from the IPS to North Creek Pump Station (Section 1)
- Finalized all conveyance permits for tunnel construction, local connections, North Creek facilities, and reclaimed water section one
- Obtained agreements on all 147 easements for the conveyance tunnel
 - 146 of the easements are now complete, signed, and recorded

East Tunnel Contract

- Through 2006, the contractor completed excavation of the Influent Structure (IS) shaft and began constructing the Influent Pump Station (IPS) shaft slurry wall panels
- Upcoming activities include pouring a slab at the base of the IS, dewatering the IS shaft, and completing IPS shaft slurry wall panels



Central Tunnel Contract

- Through 2006, the contractor constructed the sound walls, prepared for the PSE substation, and began excavating the slurry wall panels
- Upcoming activities include constructing a slurry wall for the North Kenmore shaft, excavating the Swamp Creek Connector jacking pit, and constructing the diversion structure and open cut pipeline along 192nd Street



Workers construct rebar cages for the slurry wall panels at the North Kenmore portal site

West Tunnel Contract

- In late 2006, King County issued a Notice of Selection to the joint venture of JayDee/Coluccio/Taisei
- Contract was signed on January 20, 2007, and a preconstruction conference was held in late January
- Upcoming activities:
 - Site development at the Point Wells Portal Site
 - Procurement of the Tunnel Boring Machine

Marine Outfall

- In December 2006, King County received Statements of Qualifications (SOQs) from five teams for the Marine Outfall design-build project
- A WTD evaluation team reviewed the SOQs and recommended that all five teams be invited to submit proposals
- Team proposals are due in April 2007
- King County will request best and final offers from the top three teams
- Select one design build team by June

Influent Pump Station

- In 2006, King County completed design on the Influent Pump Station and advertised the project
- King County expects to open bids for the IPS construction contract in late February 2007

Reclaimed Water Backbone

- Through 2006, King County:
 - ❑ Completed design and bid the reclaimed water pipeline at the Brightwater Treatment Plant and in the tunnels
 - ❑ Completed design and advertised the pipeline from the Brightwater IPS to the North Creek Pump Station (Section 1)
 - ❑ Completed predesign on the pipelines from the North Creek Pump Station to the York Pump Station (Section 2A) and from the York Pump Station to Willows Run Golf Course (Sections 2B)
- Expected activities in 2007 include:
 - ❑ Complete design work and SEPA for the Sections 2A & 2B
 - ❑ Complete property/easement acquisition
 - ❑ Obtain most construction permits

Permitting

- In 2006, all conveyance permits were finalized for:
 - Tunnel construction
 - Local connections
 - The North Creek Facilities
 - Reclaimed water pipeline Section One
- The tunnel easement from Burlington Northern Santa Fe (BNSF) has been completed and is expected to be executed by King County and BNSF by the end of February 2007

Project Overview: Overall Project Costs

Baseline Budget

Baseline Budget (2004\$)	Baseline Budget (3% inflation)	Baseline Budget (5% inflation)
\$1.48 billion	\$1.66 billion	\$1.79 billion

December 2005 Trend Estimate

Dec. 05 Trend (2005\$)	Dec. 05 Trend (3% inflation)	Dec. 05 Trend (5% inflation)
\$1.62 billion	\$1.75 billion	\$1.84 billion

Project Overview: 2006 Expenditures

2006 Annual Expenditures			
	YTD Actual	Planned	Percent Spent
Implementation/Construction	\$61,384,253	\$73,630,807	83.37%
Implementation/Construction	61,384,253	73,630,807	83.4%
Non-Implementation/Construction			
Engineering Services	21,980,749	20,901,396	105.2%
Planning and Management Services	7,713,508	6,879,160	112.1%
Permitting and Other Agency Support	37,925,337	41,948,806	90.4%
Right-of-Way	28,468,952	19,170,508	148.5%
Misc. Services and Materials	792,660	655,110	121.0%
Staff Labor	6,843,345	6,961,400	98.3%
Subtotal	103,724,549	96,516,381	107.5%
Accruals and Adjustments	4,857,023	0	0.0%
Project Reserve	0	0	0.0%
Project Total	169,965,825	170,147,188	99.9%
Credits and Revenues	-1,004,294	-1,032,170	0.0%
Project Total + Credits and Revenues	168,961,531	169,115,018	99.9%

Life to Date Expenditures

	Lifetime Expenditures		
	LTD Actual	Planned (w/infl)	Percent Spent
Implementation/Construction	81,143,038	1,139,709,914	7.1%
Implementation/Construction	81,143,038	1,139,709,914	
Non-Implementation/Construction			
Engineering Services	115,385,822	139,745,943	82.6%
Planning and Management Services	32,604,854	82,614,956	39.5%
Permitting and Other Agency Support	42,866,160	102,099,551	42.0%
Right-of-Way	122,934,886	120,507,035	102.0%
Misc. Services and Materials	6,552,147	9,690,203	67.6%
Staff Labor	32,127,378	58,241,553	55.2%
Subtotal	352,471,247	512,899,240	68.7%
Accruals and Adjustments	0	0	
Project Reserve	0	111,055,767	0.0%
Project Total	433,614,285	1,763,664,922	24.6%
Credits and Revenues	-2,626,705	-10,608,782	24.8%
Project Total + Credits and Revenues	430,987,580	1,753,056,140	24.6%

2006 Performance Measures

Measure	Target	Actual (2006)	Comments
Environmental Compliance			
Number of consecutive days without a notice of non-compliance	365 ^a	72	The last Notice of Violation from the Department of Ecology was issued October 20, 2006.
Safety - WTD Brightwater Staff			
Number of loss time accidents King County – WTD Brightwater Staff	0	0	
Safety - Construction Safety Compliance			
Number of consecutive days without a notice or citation for construction safety non-compliance DLI-WISHA and Fire Depts.	365	365	November 2006 Fatality Investigation at the North Kenmore Portal Project has not been finalized by DLI/ WISHA and potential contractor citations may be pending.
Safety - Contractors & Consultants			
Number of loss time accidents - Prime Contractors & Consultants	0	2	<ul style="list-style-type: none"> 80 contract workers at North Creek – East Portal/ Tunnel 65 contract workers at North Kenmore – Central Tunnel 60 contract workers at the Treatment Plant
Financial			
Annual accomplishment rate	85%	99%	Actual spending was closer to 100% partially due to higher payments for mitigation than budgeted.
Customers			
Complaints investigated and responded to within 24 hours of receipt	100%	100%	There were 6 complaints about construction activities at Brightwater in December; all were responded to within 24 hours
Job Growth – Apprentice Utilization			
<u>Treatment Plant</u>			For the period 5/06 through 12/06
Hours worked by apprenticeships/total labor hours	15%	10.95%	
Hours worked by women and minority apprentices/total apprenticeship hours	33%	33%	
<u>Conveyance System</u>			
Hours worked by apprenticeships/total labor hours	15%	16%	For East and Central contracts from the start of construction through November 2006
Hours worked by women and minority apprentices/total apprenticeship hours	33%	_____	Information pending
^a Starts January 1. Each time a violation occurs the “clock” restarts and begins counting again.			

The Brightwater Project is on schedule to become operational in 2010

